



Empowerment of cake SMEs in Laras Village through profit optimization

Mardiningsih ^{*1}, Maulida Yanti ¹, Putri Khairiah Nasution ¹, Enita Dewi Tarigan ², Muthia Ferliani Balqis ¹

¹Mathematics Department, Universitas Sumatera Utara, Medan, 20155, Indonesia

²Statistics Department, Universitas Sumatera Utara, Medan, 20155, Indonesia

*Corresponding Author: mardiningsih@usu.ac.id

ARTICLE INFO

Article history:

Received 14th January 2025

Revised 16th August 2025

Accepted 2nd November 2025

Available online

<https://talenta.usu.ac.id/jst/index>

E-ISSN: 2621-4830

P-ISSN: 2621-2560

How to cite:

Mardiningsih, M. Yanti, P.K. Nasution, E.D. Tarigan, M.F. Balqis "Empowerment of cake SMEs in Laras Village through profit optimization," *Journal Saintech Transfer*, vol. 8, no. 2. pp. 132-138, 2025.

ABSTRACT

In a village, called Laras, there is a small business (SME) that produces wet and dry cookies, marketed on a small scale. The problems faced by the SMEs include the lack of a strategic and easily accessible stall for the public, as well as minimal product promotion being conducted. Several important indicators in optimizing product sales results can be achieved through packaging design, shelf availability, and effective marketing. To address these issues, the Community Service Team provided a workshop to enhance skills related to the making of packaging label and marketing techniques. The abdimas team also provided an attractive shelving unit as a place to display the cakes to facilitate sales and make them visible to the surrounding community. In the end, a paired t-test was used to measure the benefits of the service provided. Based on the questionnaire data, the t-test statistic value obtained is $|-65.21| = 65.21 > t\text{-table value } 1.699$, hence it can be concluded that there was an improvement outcome after the service was conducted.

Keyword: SMEs, Packaging, Profit Optimization, Paired t-Test

ABSTRAK

Di desa laras terdapat satu UKM yang memproduksi kue kering basah yang dipasarkan dalam skala kecil. Permasalahan yang dihadapi oleh UKM kue kering basah di desa Laras Kabupaten Simalungun diantaranya pemilik UKM tidak mempunyai lapak yang strategis dan mudah dijangkau oleh khalayak ramai serta masih minimnya promosi produk yang dilakukan. Beberapa indikator penting dalam mengoptimalkan hasil penjualan suatu produk dapat melalui desain packaging, ketersediaan etalase penjualan, serta adanya pemasaran yang baik. Untuk mengatasi masalah tersebut, tim pengabdian melakukan kegiatan abdimas dengan memberi workshop berupa peningkatan keterampilan terkait pembuatan stiker kemasan dan pemasaran. Tim abdimas juga menyediakan etalase yang menarik sebagai tempat penataan kue agar memudahkan penjualan dan terlihat oleh masyarakat sekitar. Pada akhirnya, uji-t berpasangan digunakan untuk mengukur kebermanfaatan pengabdian yang dilakukan. Berdasarkan data kuisioner, diperoleh nilai statistik uji-t yaitu $|-65,21| = 65,21 > t\text{-tabel yaitu } 1,699$, sehingga dapat disimpulkan bahwa terjadi peningkatan penjualan setelah diadakan pengabdian.

Keyword: UKM, Kemasan, Optimalisasi keuntungan, Uji-t berpasangan

1. Introduction

In Laras Village, there is a small enterprise that produces dry and wet cakes. This small business produces its own cakes and pastries, which are then sold to the local community. However, most of these cakes are made at home on a small and limited scale, and the owner promotes the products only through personal social media.

Despite their appetizing quality, the business faces significant challenges. Home-based production and limited promotion restrict the cake's market reach and hinder competitiveness. Additionally, without a visible and accessible sales stall, there is minimal product diversification and very low customer exposure. According to Cahya et al. [1], marketing capabilities, alongside technology and capital access, are critical internal factors that significantly affect SME business success.



This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International.
<http://doi.org/10.32734/jst.v8i2.19774>

Promotion is also conducted simply by uploading photos that are not very appealing to potential buyers. Poor-quality visuals and a lack of engaging content reduce customer interest and impact sales. Research has shown that visual content on Instagram plays a significant role in creating consumer engagement and interest, up to 90% of information processed by the human brain is visual, which underscores the importance of presenting products attractively on social media platforms [2].

To address these issues, the community service team conducted a workshop to improve the owner's skills in product labeling, packaging, and marketing techniques. This aligns with findings that vocational training in packaging, labeling, and marketing can enhance SME productivity and help home-based food enterprises add value to their products [3]. The team also provided an attractive shelving unit to display the cakes so they are more visible to people passing by.

Furthermore, the community service team worked to increase product diversification and introduced digital marketing techniques, allowing the owner to reach a larger audience with minimal capital. This is especially important as digital marketing strategies have been shown to significantly boost sales, improve market reach, and support sustainable growth for SMEs [4].

Several strategies were implemented by the community service team to enhance sales and marketing capacity, including improving product branding [5], utilizing digital media for marketing [6], encouraging creativity through small exhibitions [7], and improving product photography and editing [8]. Other community service initiatives to support small enterprises have been conducted by Kembaren et al. [9], who focused on local economic development through home-based batik production, and by Manik et al. [10], who also conducted similar programs on online business strategies to increase productivity and income.

2. Methods

Based on the problems outlined above, the implementation methods included training, mentoring, facilitation of sales equipment, sticker printing and ongoing support. These activities were carried out from June to November 2024. To achieve the desired results, the process was carried out systematically through the following stages:

2.1. Preparation

Preparations were made to ensure that the implementation would run smoothly and align with the intended goals. The preparation stage consisted of the following:

- 2.1.1. *Survey and observation.* A preliminary survey was conducted at the SMEs' premises in Laras Village. This survey gathered background information about the business, including their current scale, challenges, and marketing practices.
- 2.1.2. *Problem identification.* Based on observations and direct interviews with the business owner, the primary issues were determined as limited sales infrastructure, minimal product diversification, and low-quality promotional materials.
- 2.1.3. *Activity Design.* Based on the identified problems, the team developed a simple plan that focused on improving product presentation, diversifying products, and strengthening marketing. The plan outlined the key activities, timeline, and resources to ensure the program was practical and easy for the SME owner to follow.

2.2. Implementation

The implementation of the program was divided into four main activities: workshops (training), mentoring, facility support and ongoing support.

- 2.2.1. *Workshop (training).* The workshop was conducted at Mrs. Neni's home with the owner and her workers as participants. The team introduced practical techniques for creating product stickers and labels using Canva, a simple, user-friendly design tool that can also be accessed from a mobile phone. Participants practiced selecting colors, fonts, and shapes that match the cakes' branding, and learned to add appealing product descriptions and logos. In addition, they were shown basic principles of

product photography and taught how to craft catchy captions and promotional posts for social media. The session also gave participants the chance to raise questions and receive personalized feedback, allowing them to resolve any confusion and gain confidence in using Canva.

- 2.2.2. *Mentoring.* Following the workshop, one-on-one mentoring was provided. Participants practiced creating and editing stickers, while the team offered direct feedback and guidance to help them produce high-quality packaging and promotional materials.
- 2.2.3. *Facility support.* To enhance visibility and product presentation, the team assisted in setting up a display shelf and printing customized stickers. This ensured products were attractively arranged and clearly labeled for customers.
- 2.2.4. *Ongoing support.* To help participants apply the skills they had learned, the team remained available via messaging. This ensured they could receive assistance and advice whenever needed during implementation.

2.3. Evaluation

Evaluation was conducted to assess the impact and effectiveness of the program.

- 2.3.1. *Feedback questionnaire.* Participants filled out a structured questionnaire to evaluate their satisfaction with the program, new skills acquired, and perceived benefits.
- 2.3.2. *Outcome analysis.* The community service team analyzed the questionnaire results and conducted informal interviews to gain qualitative insights into the program's success.
- 2.3.3. *Reporting.* A final report was compiled summarizing the entire program, its impact on the participating SMEs, and lessons learned for future community service activities.

3. Results and Discussion

3.1. Initial survey and observation

In this activity, the community service team conducted discussion with the SMEs owner on March 31, 2024. After that, both parties, agreed to conduct the Empowerment of Wet and Dry Cookie SMEs in Desa Laras through Profit Optimization. The initial survey was important to identify the SME's key challenges [1].

3.2. Preparation of service materials

At this stage, the community service team and students discussed the preparations needed for the first community service activity. Together, the students and team designed several sticker options to introduce to the SMEs during the first visit (Figure 1). Providing visually appealing product labels is one strategy to improve SME competitiveness [2].





Figure 1. Sticker design for SMEs products.

3.3. Implementation of the first activity

On June 14, 2024, the Abdimas team and student members visited the SME location. During this first activity, the team discussed several strategies for increasing product sales, including designing more attractive and recognizable packaging to draw customers' attention, providing shelving for better product visibility and accessibility to passersby, and utilizing customized stickers to enhance branding and product appeal (Figure 2). In addition, the team explained simple marketing techniques, such as improving social media content and offering small promotional discounts, to help boost sales. The session concluded with a practical presentation on how to create and edit stickers using Canva to make the products look more professional and appealing (Figure 3). To see how well these strategies worked, the team also agreed to stay in touch with Mrs. Neni for the next few months, reaching out occasionally to hear about any progress or changes in sales.



Figure 2. Discussion about some problems faced by SME and the strategies to solve it.



Figure 3. Some packaging alternatives with additional SME stickers

3.4. Implementation of the second activity

On October 8, 2024, the Abdimas team and student members visited Mrs. Neni's SME for the second time (Figure 4). During this visit, the Abdimas team provided a display shelf along with promotional items and sales necessities, including X-banners, cake boxes, coasters, cups, cake tongs, and printed stickers (Figure 5a). In addition, the team also offered guidance on utilizing social media and other online marketing platforms to help Mrs. Neni promote her products more widely and reach a larger audience. The activity concluded with local residents completing a questionnaire under the students' guidance (Figure 5b).



Figure 4. Handing over shelving to the SME party.



Figure 5. (a) Gift handing, (b) Filling out the questionnaire by participants.

3.5. Statistical result

The questionnaire results showed an increase in participant satisfaction with the activities provided by the Community Service Team. The bar chart in Figure 6 summarizes each participant's marketing knowledge and satisfaction before and after the activities. Similar findings on the positive impact of targeted training on SME performance can also be seen in Kembaren et al. [9] and Armidin et al. [5].

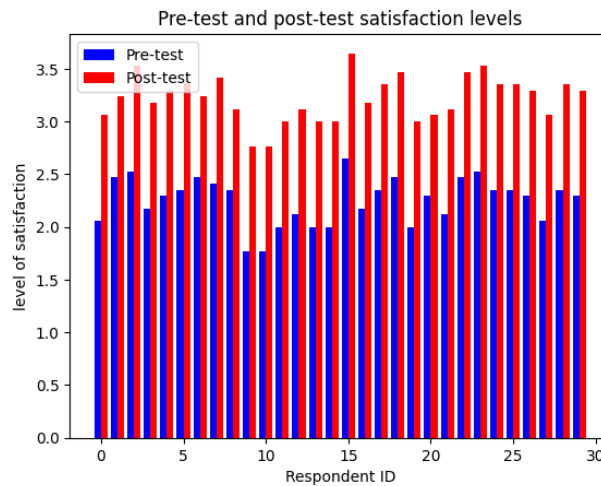


Figure 6. Bar chart of marketing knowledge and satisfaction before and after activities.

A shift in the central tendency toward a higher level of satisfaction in the post-test results can be seen from Figure 7. Furthermore, Table 1 summarizes the minimum, standard deviation, mean, median, and maximum values of participant satisfaction before and after the activities. Specifically, the mean increased substantially from 2.25 to 3.21, while the median rose from 2.29 to 3.23, indicating that the typical participant's level of satisfaction was higher after the intervention. The minimum value also increased noticeably from 1.76 to 2.76, suggesting that even the least satisfied participant in the pretest felt more satisfied after the program. Similarly, the maximum value moved upward from 2.64 to 3.64, which shows that the most satisfied participant after the activities had a greater level of satisfaction than before. The standard deviation remained nearly stable (from 0.22 to 0.21), which implies that participant satisfaction was fairly consistent across the group before and after the intervention. Such upward trends in participant knowledge and satisfaction following community service programs have also been reported by Manik et al. [10] and Damayanti et al. [3], indicating that hands-on mentoring and marketing guidance improve small business owners' competencies and enthusiasm.\

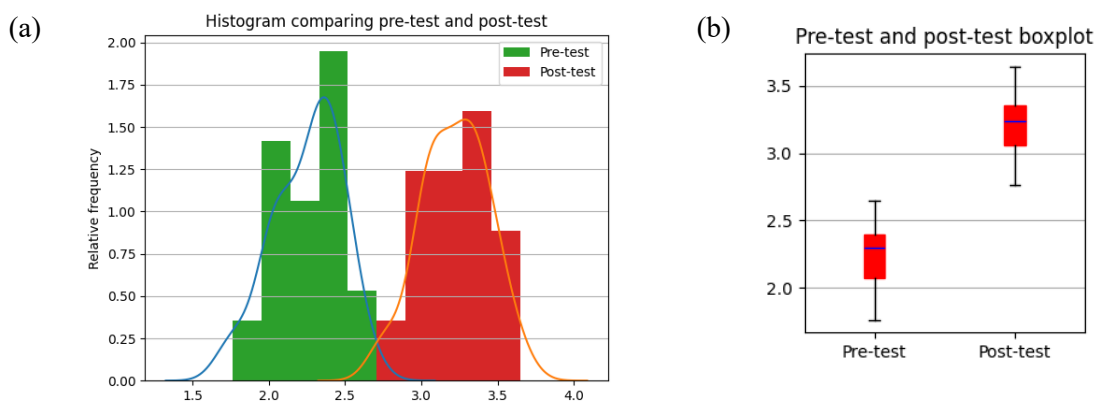


Figure 7. Histogram (a) and boxplot (b) comparing satisfaction levels before and after activities.

	Min	Standard Deviation	Mean	Median	Max
<i>Pretest</i>	1,76	0,22	2,25	2,29	2,64
<i>Posttest</i>	2,76	0,21	3,21	3,23	3,64

A paired two-sample t-test was also conducted to determine whether there was a significant difference in participants' marketing knowledge and satisfaction before and after the activities. The t-table value for 29 degrees of freedom at a 0.05 significance level is 1.699. As shown in Table 2, the t-test statistic is $|-65.21| = 65.21$, which is greater than the t-table value of 1.699. Therefore, it can be concluded that there was a significant improvement in outcomes after the service was conducted. This is consistent with findings from

similar capacity-building and product branding programs, which also show that structured interventions can significantly enhance participant satisfaction and marketing skills [4], [6].

Table 2 Paired t-test

	<i>t-statistic</i>	<i>p-value</i>
Pre-Post	-65,21	0,00

4. Conclusions

From the community service activities that have been carried out, it can be concluded that these activities are highly valuable because they yield many positive outcomes. The initial survey provided useful input and suggestions for improving SME product sales. The community service program included training on sticker editing literacy, which received a very positive response from the participants. In addition, the SMEs gained knowledge about editing stickers and learned strategies to increase their sales. Furthermore, the paired t-test results indicate that these community service activities have led to a significant improvement in SME outcomes.

5. Acknowledgements

This article is one of the outputs of community service funded by NON PNBPN funds from the Universitas Sumatera Utara in accordance with the assignment agreement for the implementation of the Mono-Year Regular Community Service Program for the 2024 Fiscal Year. The author expresses gratitude to the Rector and LPPM USU for the facilities and funds provided, which enabled this community service to be carried out successfully. We also extend our gratitude to the partners in this service activity, UKM Kue Kering Basah Neni in Desa Laras.

References

- [1] M. Cahya, K. Dwi, E. Raharja, Y. Sugiarto, "An investigation of factors affecting SMEs performance: an Indonesian case", *Diponegoro International Journal of Business*, vol. 2, no. 1, pp. 52–56. (2019).
- [2] M.A. Hanindhaputri, A.A. Pradnyanita, A. A. "Konten visual instagram sebagai strategi pemasaran umkm baru", [Instagram visual content as a new SME marketing strategy], in *Prosiding SNADES*, 2021.
- [3] W. Damayanti, N.A. Khotamin, Ajib, "Pelatihan vokasional (Packaging, Labeling dan Marketing) sebagai upaya peningkatan produktifitas bagi pelaku UMKM", [Vocational training (Packaging, Labeling, and Marketing) as an effort to increase productivity for MSME players], *Jurnal Loyalitas Sosial*, vol. 5, no. 1, pp. 15–22, 2023.
- [4] M. Setini, I.M.S. Amerta, N.L.P. Indiani, P.A.S. Laksmi, E. Triandini, A.P. Purwatiningsih, G. Suardana, "Digital marketing strategy as a catalyst for SME growth in the modern era", *EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi dan Bisnis*, vol. 13, no. 1, pp. 951-966, 2025.
- [5] R.P. Armidin, T.J. Marpaung, A.S. Lubis, J.L. Marpaung, R. Gunaika, A.Q. Hutagalung, F. Hasan, V.R. Manurung, E.S. Harahap, "Increasing productivity and local product branding optimization and food security in Desa Perkebunan Tanjung Kasau", *ABDIMAS TALENTA: Jurnal Pengabdian Kepada Masyarakat*, vol. 8, no. 2, pp. 1318-1331, 2023.
- [6] D. Aulia, T. Kurniawan, S.H. Luthfiyyah, S, R.P.D. Hutasuht, S. Azahra, A. Deannova, "Increasing the welfare of salted fish MSME actors through innovation, branding, and product digital marketing", *ABDIMAS TALENTA: Jurnal Pengabdian Kepada Masyarakat*, vol. 8, no. 2, pp. 900-906, 2023.
- [7] S.P. Manalu, A. Muharani, E. Widyawati, T.N. Nurzanna, "UMKM creative exhibition as a realization of the potential of the rising economic village Desa Perkebunan Tanjung Kasau," *ABDIMAS TALENTA: Jurnal Pengabdian Kepada Masyarakat*, vol. 8, no. 2, pp. 1134-1140, 2023.
- [8] F.Y. Manik, D.S.B. Ginting, T. Yuliaty, I.M.K. Putri, M.A. Fadhillah, E. Sembiring, I.J. Kamil, "Photo editing training for PKK group in Rambung Barat Village using free smartphone applications as an effort to promote attractive products", *ABDIMAS TALENTA: Jurnal Pengabdian Kepada Masyarakat*, vol. 8(=, no. 2, pp. 708-715, 2023.
- [9] M.M. Kembaren, M.H. Lubis, E. Yudhistira, R. Gunaika, Empowering village women through home industry batik prima jaya to create local economic," *ABDIMAS TALENTA: Jurnal Pengabdian Kepada Masyarakat*, vol. 9, no. 1, pp. 69-77, 2024.
- [10] F.Y. Manik, D.S.B. Ginting, T. Yuliaty, "Strategy and online business development as effort to increase productivity and income", *ABDIMAS TALENTA: Jurnal Pengabdian Kepada Masyarakat*, vol. 8, no. 2, pp. 1205-1213, 2023.